

CS155-50

UNITED STATES DEPARTMENT OF COMMERCE

Office of Technical Services

SINCLAIR WEEKS, SECRETARY

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NEW INDUSTRY ENDORSEMENT OF BOYS'
BODY MEASUREMENT STANDARD, CS155-50

The knitted outerwear industry has just endorsed Body Measurements for the Sizing of Boys' Apparel, CS155-50, the Commodity Standards Division of the U. S. Department of Commerce announced today. For that industry the standard will become effective April 19, 1956.

The boys' knitted outerwear industry has now joined with other segments of the boys' apparel industry in endorsing the "height-weight" system of body measurement sizing. Under this system "height" and "weight" are the principal determinants of size replacing the "age" concept.

For knitted outerwear the effective date of the standard will be April 19, 1956. Beginning on that date the sizing of boys' knitted outerwear--sweaters, bathing suits, etc.,--will be coordinated with the other items of boys' apparel--knitted underwear, sports and dress shirts, woven shorts, trousers, and sports-outerwear--now being made according to the same sizing system. The new endorsement is expected to strengthen consumer confidence in the "height-weight" system, and in garments designated and proportioned according to it, Commerce officials said.

The coordination of these sizing systems will not only facilitate the merchandising of boys' apparel but will also ease the consumer's shopping problems. The trade will understand that in the future, boys' knitted outerwear, will be made to fit the same boys for given sizes as the other segments of the boys' apparel industry. Labeling directions are also provided for.

It is expected that some knitted outerwear lines, based on CS155-50, will appear before the official date, April 19, which coincides with the National Convention of the knitted outerwear industry in New York City.

CS155-50 is based on a study of the measurements of 66,000 boys living in various parts of the United States. The measurements were taken under the direction of the U. S. Department of Agriculture, and were analyzed scientifically to provide a system with maximum sales potentials for sizing boys' garments of all kinds.

Printed copies of CS155-50, including a revised and enlarged list of acceptors, will be made available to knitted outerwear acceptors as promptly as possible. In the meantime printed copies with the original acceptor list are available from the Department of Commerce, Washington 25, D. C., for 20 cents a copy.

Commercial Standard CS155-50

Body Measurements for the Sizing of Boys' Apparel

(Knit Underwear, Shirts, and Trousers)

A Recorded Voluntary Standard of the Trade

COMMODITY STANDARDS

Simplified Practice Recommendations and Commercial Standards are developed by manufacturers, distributors, and users in cooperation with the Commodity Standards Division of the Office of Industry and Commerce, Bureau of Foreign and Domestic Commerce, and with the National Bureau of Standards.

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U. S. DEPARTMENT OF COMMERCE
Charles Sawyer, Secretary

BUREAU OF FOREIGN AND DOMESTIC COMMERCE
Office of Industry and Commerce
H. B. McCoy, Director

In cooperation with

NATIONAL BUREAU OF STANDARDS
E. U. Condon, Director

BODY MEASUREMENTS FOR THE SIZING OF
BOYS' APPAREL¹

(Knit Underwear, Shirts, and Trousers)

[Effective September 10, 1950]

1. PURPOSE

1.1 The purpose of this standard is to establish standard size designations and body measurements for the sizing of boys' ready-to-wear clothing for the guidance of those engaged in producing, or preparing specifications for, ready-to-wear garments and patterns. Another purpose is to recommend methods of determining lengths of trousers—inseam, outseam and true rise measurements—that correspond with the body measurements.

2. SCOPE

2.1 This standard covers:

- (a) Classification and size range.
 - (1) Boys—in sizes from number 2 to number 20.²
- (b) Size designations.
- (c) Body measurements of boys for "regular" sizes from a stature of 34 inches and a weight of 29 pounds to a stature of 68 inches and a weight of 138 pounds.
- (d) Lengths of trousers—inseams, outseams, and true rise—related to body measurements.
- (e) Methods of measuring.
 - (1) General.
 - (2) Vertical measurements of body.
 - (3) Girth measurements of body.
 - (4) Width and length measurements of body.
 - (5) Trouser lengths—inseams, outseams, and true rise.
- (f) Relationship of stature measurements to the sizing system.
- (g) Recommended methods of identification.
- (h) Explanation of adjustments made in body measurements.

¹This system of sizing has been endorsed by firms representing a majority of production of boys' knit underwear, dress and sport shirts, and dress trousers and slacks; and by distributor and user interests. It has also received substantial endorsement by producers and distributors in other segments of the boys' apparel industry, but not sufficient to warrant promulgation for those segments.

²This single range of sizes includes those classifications commonly known to the trade as Juvenile, Little Boys, Junior Boys, Prep, Big Boys, etc., but not the Student classification, which will be covered by a separate commercial standard.

3. APPLICATION

- 3.1 The methods and measurements given herein are applicable to:
- (a) Coordination of body measurements of the boy, as defined, with ready-to-wear size designations.
 - (b) Garment patterns and specifications, as a basis of gradations between sizes.
 - (c) Inseam, outseam, and true rise measurements of finished trousers, as delivered by the manufacturer.

4. DEFINITIONS

4.1 Definitions of the more important body landmarks, shown in figure 1, are given in paragraph 4.2.

4.2 Body landmarks.

- (a) Crown.—Top of head (A, fig. 1).

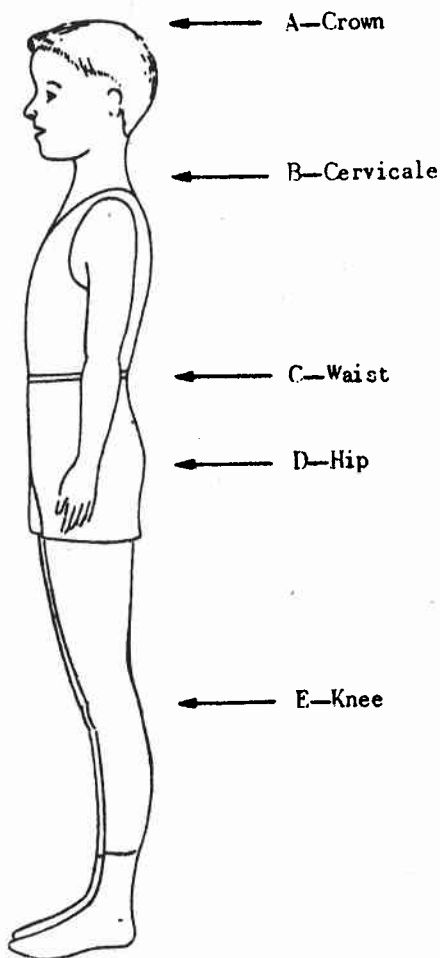


Figure 1. General location of principal body landmarks.

- (b) *Cervicale*.—The prominence on the seventh, or lowest, cervical vertebra at the back of the neck (B, fig. 1), which becomes more prominent when the head is bent forward. (Cervicale height measurements are taken, however, only when the head is in an erect position.)
- (c) *Waist*.—The lower edge of lower floating rib, located at the side of the body in a line directly below the center of the armpit (C, fig. 1).
- (d) *Hip*.—The outer bony prominence at the upper end of the thigh bone (the femur) (D, fig. 1).
- (e) *Knee*.—The inner bony prominence of the upper end of the tibia, the larger of the two bones of the leg extending from knee to ankle (E, fig. 1).

5. METHODS OF MEASURING—GENERAL

- 5.1 *Accuracy*.—All measurements are taken to the nearest 1/8 inch.
- 5.2 *Trouser lengths*.³—In measuring trousers they should be laid out without tension on a smooth, flat surface so that creases and wrinkles will not affect the measurements.

6. METHODS OF MEASURING THE BODY⁴

- 6.1 *Vertical measurements*.
 - (a) *Stature*.—Measured from crown to soles of feet.
 - (b) *Cervicale height*.—Measured from cervicale [see par. 4.2 (b)] to soles of feet.
 - (c) *Waist height*.—Measured from waist [see par. 4.2 (c)] to soles of feet. This waist height establishes the waist level around the body.
 - (d) *Hip height*.—Measured from hip [see par. 4.2 (d)] to soles of feet.
 - (e) *Knee height*.—Measured from knee [see par. 4.2 (e)] to soles of feet.
- 6.2 *Girth measurements*.
 - (a) Chest, waist and hip girth measurements are usually taken over a shirt and trousers, or slacks, without a belt. It is assumed that customary undergarments are worn underneath.⁵
 - (1) *Chest (girth)*.—Measured horizontally close up under arms. The measurements should include the lower portion of the shoulder blades (fig. 2).

³Length measurements of trousers are included in this standard because they closely approximate the distance between the landmarks that apply to particular garments, and serve to insure a greater degree of uniformity in trade interpretation of these data.

⁴More complete information regarding the methods of measuring the body may be obtained from Miscellaneous Publication No. 366 of the U. S. Department of Agriculture. (See par. 11.2.)

⁵Girth measurements in this standard include an allowance for clothing (see par. 11.3).

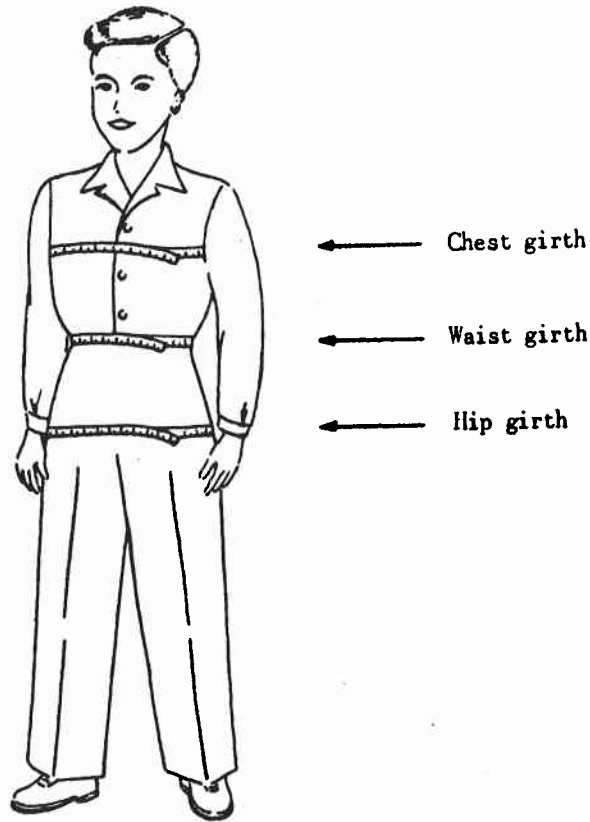


Figure 2. Girth measurements—chest, waist, and hip.

- (2) *Waist (girth).*—Measured horizontally at waist height [see par. 6.1 (c)], with belt removed (fig. 2).
- (3) *Hip (girth).*—Measured horizontally at hip height [see par. 6.1 (d) and fig. 2].
- (b) *When underwear is worn.*
 - (1) *Vertical trunk (girth).*⁶—Measured from a point on the shoulder midway between the neck and the normal armhole line, through the crotch (G through F to G, fig. 3). The measurement should be taken without constriction at crotch.
 - (2) *Thigh (girth).*—Measured horizontally around the upper part of the leg, close up to the crotch (H through F to H, fig. 3).
 - (3) *Neck base (girth).*—Measured around the neck, touching the cervicale at the back and the upper borders of the collar bone at the front, and following the curve that would be made by a fine linked chain passing over these landmarks (B through J to B, figs. 4 and 5).

⁶The vertical trunk girth measurement includes an allowance for clothing (see par. 11.3).

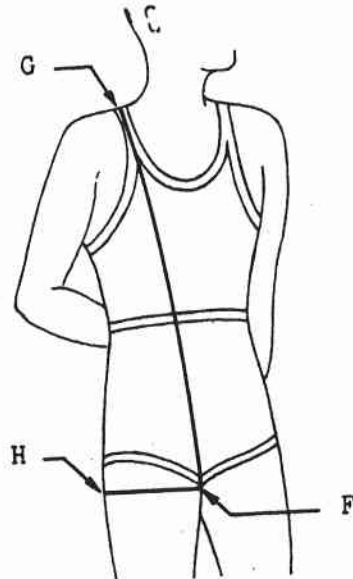


Figure 3. Vertical trunk and thigh.

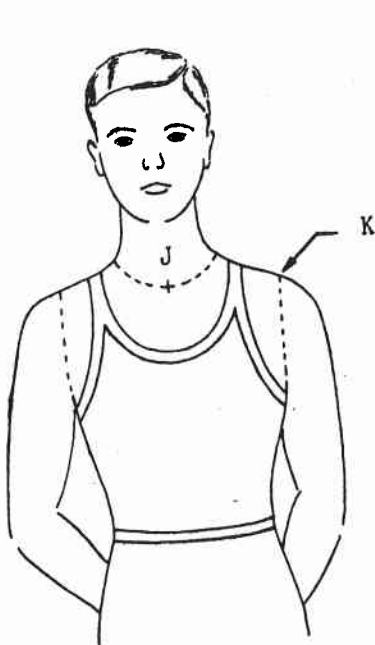


Figure 4. Armscye and neck girths.

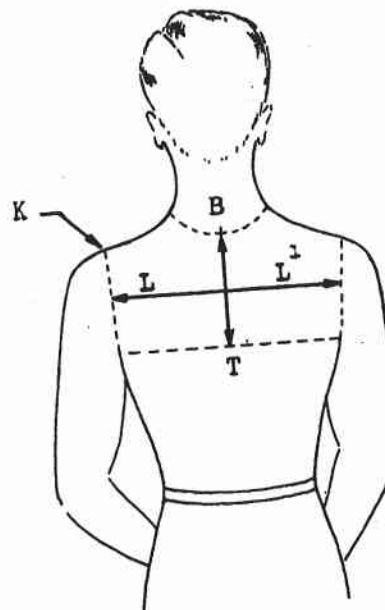


Figure 5. Armscye and neck girths, and cross-back width.

- (4) Armscye (girth).—Measured from a point at the armhole edge of the shoulder, midway between the acromion and the highest prominence at the lateral end of the collar bone, and through the underarm midpoint (K around the arm to K, figs. 4 and 5).

6.3 Width and length measurements.

- (a) *Cross-back width*.—Measured across the back from armscye to armscye, halfway between the cervicale and the bottom of the armscye (L to L¹, fig. 5).
- (b) *Scye depth*.—Measured from cervicale to point at the "center back" where chest girth crosses the "center back" line. (B to T, fig. 5.)
- (c) *Total crotch length*.¹—Measured from waist level at front, through the crotch to the waist level at the back (C through F (fig. 3) to C¹, fig. 6). For waist level, see par. 6.1(c).

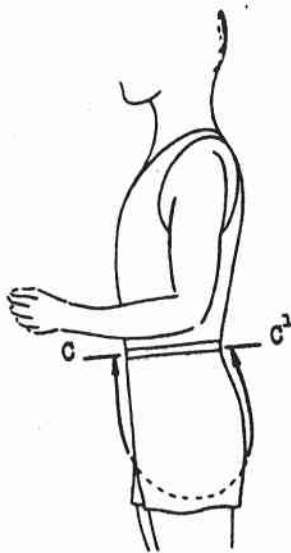


Figure 6. Total crotch length.

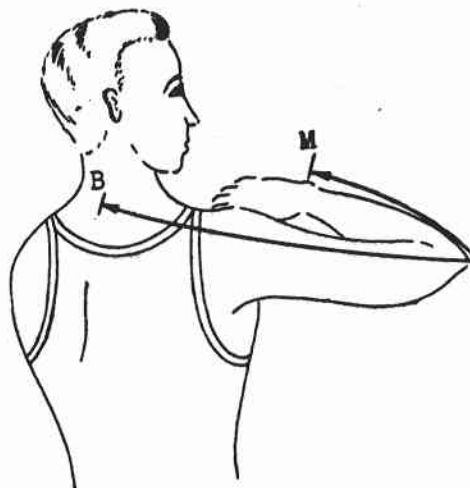


Figure 7. Cervicale to wrist length.

- (d) *Cervicale to wrist length*.—Measured from the cervicale [see par. 4.2 (b)] to the wristbone at the back of the hand. The arm should be bent at the elbow, and raised so that the measurement can be taken as straight as possible from cervicale to elbow (B around elbow to M, fig. 7).

7. METHODS OF MEASURING THE TROUSERS

7.1. Trousers lengths.

- (a) *Length of inseam*.—Measured from the crotch seams to the finished bottom of the garment, whether plain or cuffed (P to Q, fig. 8).
- (b) *Length of outseam*.—Measured from the top of the waistband to the finished bottom of the garment, whether plain or cuffed (R to S, fig. 8).

¹The total crotch length measurement includes an allowance for clothing (see par. 11.3).

(c) *True rise*.—Represents the difference between the inseam and outseam measurements of trousers, or the vertical crotch depth of trousers (fig. 8).

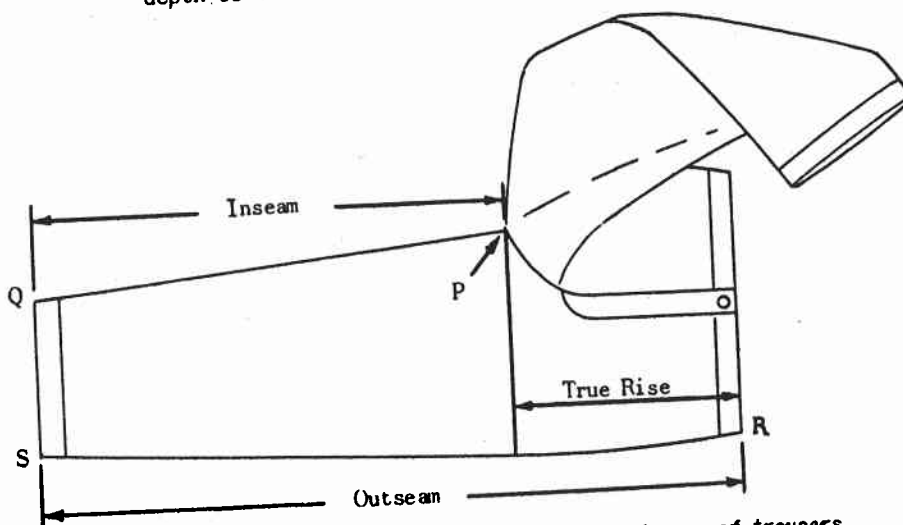


Figure 8. True rise in relation to outseam and inseam of trousers.

8. STATURE MEASUREMENTS AS SIZE INDICATORS

8.1 In view of the fact that a boy's stature is one of the predominant measurements of his growth, and also one of the best single indicators of other body measurements, the sizes in this standard are based primarily on even variations in stature measurements.

8.2 Weights corresponding to the given statures and chest or hip girths are high-lighted in the tables for the convenience of the user. They have been adjusted for the weight of indoor clothing assumed to be worn by the child when the body measurements are taken.

9. SIZE RANGES AND CORRESPONDING MEASUREMENTS

9.1 The size designations and corresponding body measurements are given in table 1.

9.2 The inseam, outseam, and true rise measurements of boys' trousers are given in table 2.

TABLE 1.—Boys' body measurements, in sizes from 2 to 20

Measurement	SIZE (number) ^a										SIZE (number)									
	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
Stature—Inches.....	34	37	40	43	46	48	50	52	54	56	58	59 1/2	61	62 1/2	64	65	66	67	68	
Weight (approx.)—pounds.....	29	34	38	44	49	54	59	65	73	80	87	93	100	107	115	121	126	132	138	
GIRTH MEASUREMENTS ^b																				
Chest.....	In. 20 1/2	In. 21 1/2	In. 22 1/2	In. 23 1/2	In. 24 1/2	In. 25 3/4	In. 26 1/2	In. 27 1/2	In. 28 1/2	In. 29 1/2	In. 30 1/2	In. 31 1/2	In. 32 1/2	In. 33 1/2	In. 34 1/2	In. 35 1/2	In. 36 1/2	In. 37 1/2	In. 38 1/2	In. 39 1/2
Waist.....	In. 21 1/2	In. 22 1/2	In. 23 1/2	In. 24 1/2	In. 25 1/2	In. 26 1/2	In. 27 1/2	In. 28 1/2	In. 29 1/2	In. 30 1/2	In. 31 1/2	In. 32 1/2	In. 33 1/2	In. 34 1/2	In. 35 1/2	In. 36 1/2	In. 37 1/2	In. 38 1/2	In. 39 1/2	In. 40 1/2
Hip.....	In. 21 1/2	In. 22 1/2	In. 23 1/2	In. 24 1/2	In. 25 1/2	In. 26 1/2	In. 27 1/2	In. 28 1/2	In. 29 1/2	In. 30 1/2	In. 31 1/2	In. 32 1/2	In. 33 1/2	In. 34 1/2	In. 35 1/2	In. 36 1/2	In. 37 1/2	In. 38 1/2	In. 39 1/2	In. 40 1/2
Vertical trunk.....	In. 21 1/2	In. 22 1/2	In. 23 1/2	In. 24 1/2	In. 25 1/2	In. 26 1/2	In. 27 1/2	In. 28 1/2	In. 29 1/2	In. 30 1/2	In. 31 1/2	In. 32 1/2	In. 33 1/2	In. 34 1/2	In. 35 1/2	In. 36 1/2	In. 37 1/2	In. 38 1/2	In. 39 1/2	In. 40 1/2
Thigh.....	In. 12 1/2	In. 13 1/2	In. 14 1/2	In. 15 1/2	In. 16 1/2	In. 17 1/2	In. 18 1/2	In. 19 1/2	In. 20 1/2	In. 21 1/2	In. 22 1/2	In. 23 1/2	In. 24 1/2	In. 25 1/2	In. 26 1/2	In. 27 1/2	In. 28 1/2	In. 29 1/2	In. 30 1/2	In. 31 1/2
Neck base.....	In. 10 1/2	In. 11 1/2	In. 12 1/2	In. 13 1/2	In. 14 1/2	In. 15 1/2	In. 16 1/2	In. 17 1/2	In. 18 1/2	In. 19 1/2	In. 20 1/2	In. 21 1/2	In. 22 1/2	In. 23 1/2	In. 24 1/2	In. 25 1/2	In. 26 1/2	In. 27 1/2	In. 28 1/2	In. 29 1/2
Armscye.....	In. 9 1/2	In. 10 1/2	In. 11 1/2	In. 12 1/2	In. 13 1/2	In. 14 1/2	In. 15 1/2	In. 16 1/2	In. 17 1/2	In. 18 1/2	In. 19 1/2	In. 20 1/2	In. 21 1/2	In. 22 1/2	In. 23 1/2	In. 24 1/2	In. 25 1/2	In. 26 1/2	In. 27 1/2	In. 28 1/2
Upper arm girth.....	In. 6 1/8	In. 6 3/8	In. 6 5/8	In. 6 3/4	In. 7	In. 7 1/4	In. 7 1/2	In. 7 3/4	In. 8	In. 8 1/4	In. 8 1/2	In. 8 3/4	In. 9	In. 9 1/4	In. 9 1/2	In. 9 3/4	In. 10	In. 10 1/8	In. 10 1/4	In. 10 1/2
WIDTH AND LENGTH MEASUREMENTS ^b																				
Shoulder length.....	In. 2 5/8	In. 2 3/4	In. 2 7/8	In. 3	In. 3 1/8	In. 3 1/4	In. 3 3/8	In. 3 1/2	In. 3 5/8	In. 3 3/4	In. 3 7/8	In. 4	In. 4 1/8	In. 4 1/4	In. 4 3/8	In. 4 1/2	In. 4 5/8	In. 4 3/4	In. 4 7/8	In. 5
Cross-back width.....	In. 8 5/8	In. 9	In. 9 3/8	In. 9 3/4	In. 10 1/8	In. 10 1/2	In. 10 7/8	In. 11 1/8	In. 11 1/2	In. 11 3/4	In. 12	In. 12 3/8	In. 12 3/4	In. 13	In. 13 1/4	In. 13 1/2	In. 13 3/4	In. 14	In. 14 1/4	In. 14 1/2
Total crotch length.....	In. 17	In. 18	In. 19	In. 19 3/4	In. 20 1/2	In. 21 1/4	In. 22	In. 22 3/4	In. 23 3/4	In. 24 1/2	In. 25 1/4	In. 26	In. 26 5/8	In. 27 1/4	In. 27 7/8	In. 28 1/2	In. 29	In. 29 1/2	In. 30	In. 30 1/2
Cervicale to wrist length.....	In. 15 3/4	In. 17	In. 18 1/2	In. 20	In. 21 1/4	In. 22 1/4	In. 23 1/4	In. 24 1/4	In. 25 1/4	In. 26 1/4	In. 27 1/4	In. 28	In. 28 3/4	In. 29 1/2	In. 30 1/4	In. 30 3/4	In. 31 1/4	In. 31 3/4	In. 32 1/4	In. 32 1/2
VERTICAL MEASUREMENTS ^d																				
Head and neck length.....	In. 6 5/8	In. 7	In. 7 1/4	In. 7 1/2	In. 7 3/4	In. 8	In. 8 1/4	In. 8 1/2	In. 8 3/4	In. 8 7/8	In. 9	In. 9 1/8	In. 9 1/4	In. 9 3/8	In. 9 1/2	In. 9 5/8	In. 9 3/4	In. 9 7/8	In. 10	In. 10 1/2
Cervicale height.....	In. 27 3/8	In. 30	In. 32 3/4	In. 35 1/2	In. 38 1/4	In. 40	In. 41 3/4	In. 43 1/2	In. 45 1/4	In. 47 1/8	In. 49	In. 50 3/8	In. 51 3/4	In. 53 1/8	In. 54 1/2	In. 55 3/8	In. 56 1/4	In. 57 1/8	In. 58	In. 59
Sleeve depth.....	In. 4	In. 4 1/4	In. 4 1/2	In. 4 3/4	In. 5	In. 5 1/4	In. 5 3/8	In. 5 1/2	In. 5 3/4	In. 5 5/8	In. 6	In. 6 1/4	In. 6 3/8	In. 6 1/2	In. 6 3/4	In. 6 5/8	In. 7	In. 7 1/4	In. 7 1/2	In. 7 3/4
Cervicale to waist, including curve of spine.....	In. 8 1/2	In. 9	In. 9 1/2	In. 10	In. 10 1/2	In. 10 3/4	In. 11 1/8	In. 11 1/2	In. 11 3/4	In. 12	In. 12 3/8	In. 12 3/4	In. 13 1/4	In. 13 3/4	In. 14 1/4	In. 14 5/8	In. 15	In. 15 1/4	In. 15 1/2	In. 15 3/4
Waist height.....	In. 19 1/4	In. 21 1/2	In. 23 3/4	In. 26	In. 28	In. 29 1/2	In. 31	In. 32 1/2	In. 34	In. 35 1/2	In. 37	In. 38	In. 39	In. 39 7/8	In. 40 5/8	In. 41 1/4	In. 41 7/8	In. 42 1/2	In. 43	In. 43 1/2
Waist to hip.....	In. 3 7/8	In. 4 3/8	In. 4 3/4	In. 4 5/8	In. 5 1/8	In. 5 1/2	In. 5 3/4	In. 5 5/8	In. 6 1/4	In. 6 1/2	In. 6 3/4	In. 6 5/8	In. 6 7/8	In. 7	In. 7 1/8	In. 7 1/4	In. 7 3/8	In. 7 1/2	In. 7 5/8	In. 7 3/4
Crotch height.....	In. 13 1/8	In. 14 7/8	In. 16 5/8	In. 18 3/8	In. 20 1/8	In. 21 1/4	In. 22 3/8	In. 23 5/8	In. 24 7/8	In. 26	In. 27 1/4	In. 28	In. 28 3/4	In. 29 3/8	In. 29 7/8	In. 30 3/8	In. 30 3/4	In. 31 1/8	In. 31 1/2	In. 31 3/4
Knee height.....	In. 8 1/2	In. 9 1/2	In. 10 1/2	In. 11 1/2	In. 12 1/2	In. 13	In. 13 5/8	In. 14 1/4	In. 14 7/8	In. 15 1/2	In. 16 1/4	In. 16 5/8	In. 17	In. 17 1/2	In. 18	In. 18 1/4	In. 18 1/2	In. 18 3/4	In. 19	In. 19 1/2
Ankle height.....	In. 1 3/4	In. 1 7/8	In. 2 1/8	In. 2 1/4	In. 2 3/8	In. 2 3/4	In. 2 5/8	In. 2 7/8	In. 3	In. 3 1/8	In. 3 1/4	In. 3 3/8	In. 3 1/2	In. 3 5/8	In. 3 3/4	In. 3 7/8	In. 4	In. 4 1/8	In. 4 1/4	In. 4 1/2
Approximate age, based on stature.....	No. 25 1/2	No. 37	No. 50	No. 63	No. 77	No. 77	No. 77	No. 77	No. 77	No. 77	No. 77	No. 77	No. 77	No. 77	No. 77	No. 77	No. 77	No. 77	No. 77	No. 77

^a Measurements identical with children's classification based on composite boys' and girls' measurements.^b These measurements are body, not garment measurements. The size-to-size gradations between these body measurements may be applied to garment patterns or specifications in grading, but they are not to be considered actual garment measurements.^c Extrapolated.^d Since even gradations in vertical body measurements between sizes serve to make this standard more useful in grading garment patterns or specifications, minor adjustments (1/8 inch) have been made in a few instances to achieve this purpose.^e Approximate age has relatively little relationship to these size designations.

TABLE 2.—Boys' trouser measurements,^a in sizes from 2 to 20

TABLE 2. Boys' Trousers

Measurement	Size (number) ^b				
	2	3	4	5	6
True rise, including waistband.....	In. 7 1/2	In. 7 3/4	In. 8	In. 8 1/4	In. 8 1/2
Inseam.....	12 1/2	13 3/4	15 1/2	17 1/4	19
Outseam, including waistband.....	20	21 1/2	23 1/2	25 1/2	27 1/2
Waistband width, (assumed).....	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4
Bottom of trousers, clearance above soles of feet at heel (assumed)....	1/2	1/2	1/2	1/2	1/2

Measurement	Size (number)—Continued						
	7	8	9	10	11	12	13
True rise, including waistband.....	In. 8 3/4	In. 9	In. 9 1/4	In. 9 1/2	In. 9 3/4	In. 10	In. 10 1/4
Inseam.....	20 1/4	21 1/2	22 3/4	24	25 1/4	26 1/2	27 1/4
Outseam, including waistband.....	29	30 1/2	32	33 1/2	35	36 1/2	37 1/2
Waistband width, (assumed).....	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
Bottom of trousers, clearance above soles of feet at heel (assumed)....	1/2	1/2	1/2	1/2	1/2	1/2	1/2

Measurement	Size (number)—Continued						
	14	15	16	17	18	19	20
True rise, including waistband.....	In. 10 1/2	In. 10 3/4	In. 11	In. 11 1/4	In. 11 1/2	In. 11 3/4	In. 12
Inseam.....	28	28 1/2	29	29 1/2	30	30 1/2	31
Outseam, including waistband.....	38 1/2	39 1/4	40	40 3/4	41 1/2	42 1/4	43
Waistband width, (assumed).....	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
Bottom of trousers, clearance above soles of feet at heel (assumed)....	1/2	1/2	1/2	1/2	1/2	1/2	1/2

^a The lengths of trousers given herein indicate the calculated length of trousers when their distances above the soles of the feet are those shown in the table. Length measurements of trousers are included because they closely approximate the distance between the body landmarks that apply to trousers, and serve to insure a greater degree of uniformity in trade interpretation of these data.

^b Based on measurements of the children's scale, which are composites of boys' and girls' measurements.

10. IDENTIFICATION

10.1 In order to assure consumers that published scales of body measurements for the sizing of boys' apparel conform to this standard, it is recommended that catalogs and sales literature carry the following statement:

Sizes of Boys' apparel are designated and proportioned in accordance with CS155-50, as developed by the trade under the procedure of the Commodity Standards Division, and issued by the U. S. Department of Commerce.

10.2 In order to assure the purchaser that she is receiving garments which conform to this system of body measurement sizing, it is recommended that such garments be identified by a sticker, tag, hanger, or other label attached to the garment carrying the following statement:

SIZE _____, CS155-50

HEIGHT _____, WEIGHT _____, *

* Use appropriate critical measurement, such as chest, waist, vertical trunk girth, etc.

11. EXPLANATORY

11.1 The following explanatory paragraphs have been prepared for those who are interested in ascertaining how the body measurements in this standard were derived.

11.2 *Source.* The body measurements are based on Miscellaneous Publication No. 366, Body Measurements of American Boys and Girls for Garment and Pattern Construction, issued by the U. S. Department of Agriculture.

11.2.1 The basic body measurements were selected from the sizing statistics in the above-mentioned publication. These statistics indicate that there are more "thin" than "stout" boys in the taller groups and more "stout" than "thin" boys in the shorter groups. The measurements for the taller boys, therefore, are close to the "C" columns of table 23, which represent the most common measurements of boys of given statures, while the measurements for the shorter boys are closer to the "D" columns of table 24, which represent the measurements of the group of stout boys next to the "C" or average group.

11.3 *Adjustments for clothing allowances.*—Since the girth body measurements represent the boy dressed as he would be measured for size (see fig. 2 and definitions in par. 6.2), appropriate allowances for clothing have been added to the basic body measurements. As there is no way to predetermine just what clothing will be worn when the measurements are taken, or the types of garments worn, or the weights of the fabrics used in those garments, the following clothing allowances were arbitrarily selected:

- (a) Weights—14 oz. from size 2 to size 6; 18 oz. from size 7 to size 9, and 24 oz. over size 9.
- (b) Chest—3/4 inch for all sizes.
- (c) Waist—1 inch for all sizes.

- (d) Hip—3/4 inch for all sizes.
- (e) Vertical trunk girth—2 inches for all sizes.
- (f) Total crotch length—1 1/4 inches for all sizes.

Manufacturers of knit underwear, bathing suits, etc., may obtain the "nude" or "skin" measurements of the boys by deducting these clothing allowances from the body measurements given in table 1.

11.4 *Adjustments to achieve more uniform gradations between sizes.*—Unadjusted body measurements frequently do not result in even gradations between sizes. Therefore, it has been necessary to make minor adjustments in these scales to insure more even gradations between sizes. However, except for a slight "thickening" at the waist, due to the greater variation of the waist girth in relation to the other body measurements, and the clothing allowances indicated in paragraph 11.3, the girth scales above size 6 reflect the general chest, waist, and hip proportions of boys of the given statures and weights.

12. EFFECTIVE DATE

12.1 Having been passed through the regular procedure of the Commodity Standards Division, and approved by the acceptors hereinafter listed, this commercial standard was issued by the United States Department of Commerce, effective from September 10, 1950.

Edwin W. Ely,
Chief, Commodity Standards Division.

13. HISTORY OF PROJECT

13.1 This project was initiated in 1944 by the Mail Order Association of America, which requested the cooperation of the National Bureau of Standards in the development and establishment of a standard for the sizing of boys' ready-to-wear apparel, covering size classifications, size designations, and corresponding body measurements.⁸

13.2 From the data provided, and after several conferences with representatives of interested groups, a proposed commercial standard was drafted, and submitted to leading manufacturers and distributors of boys' clothing, to Government agencies, colleges, trade schools, and user organizations for advance comment. Some adjustments were made in the draft in the light of the constructive suggestions received, following which the standard was circulated to the entire trade for written acceptance on May 15, 1947.

13.3 Since that time acceptances representing adequate support have been received from the boys' knit underwear, shirt, and trouser industries. The standard became effective for the boys' knit underwear industry on September 28, 1949, for the boys' shirt industry on February 15, 1950, and for the boys' trouser industry on September 10, 1950. This is the first time the standard has been issued in printed form, the previous editions having been available only in mimeographed form.

⁸A similar standard on body measurements for the sizing of girls' apparel, CS153-48, has been issued by the U. S. Department of Commerce.

13.4 Through the establishment of a sizing system based on body measurements of the boy rather than his age, it is felt that some understandable significance is given to the sizes of apparel. Through this standard, and others of the series, consumers should be able to order the correct size without the necessity of try-ons. Distributors and manufacturers now have, for the first time, a commercial standard which will serve as an acceptable reference regarding the sizing of boys' ready-to-wear apparel. Variations between different sizing systems should gradually be eliminated, and competition can be focused on the factors of quality, style, and fit, which remain unhampered and unrestricted by this standard.

Project Manager: MANSFIELD LONIE, Commodity Standards Division, Office of Industry and Commerce.

Technical Adviser: W. D. APPEL, Organic and Fibrous Materials Division, National Bureau of Standards.

14. STANDING COMMITTEE

14.1 The following individuals comprise the membership of the standing committee, which is to review, prior to circulation for acceptance, revisions proposed to keep the standard abreast of progress. Comment concerning the standard and suggestions for revision may be addressed to any member of the committee or to the Commodity Standards Division, Office of Industry and Commerce, U. S. Department of Commerce, which acts as secretary for the committee.

- JOSEPH D. ISAACSON, Chairman
 IRVING BARASH, Spiegel, Inc., Chicago, Ill. (representing Mail Order Association of America).
 MRS. ERNEST H. DANIEL, Broad Branch & Grant Roads, NW., Washington, D. C. (representing General Federation of Women's Clubs).
 BENJAMIN GIBBS, Gibbs Underwear Co., Indiana and A Street, Philadelphia 34, Pa. (representing the Underwear Institute).
 SHERMAN P. HAIGHT, E-Z Mills, Bennington, Vt. (representing the Underwear Institute).
 JOSEPH D. ISAACSON, L. Isaacson & Sons, 8 West Thirtieth Street, New York, N. Y. (representing Boys' Apparel & Accessories Manufacturers' Association).
 HAROLD E. JONES, Institute of Child Welfare, University of California, 2739 Bancroft Way, Berkeley 4, Calif.
 OSCAR KARREL, Lord & Taylor, 424 Fifth Avenue, New York 18, N. Y. (representing Boys' Apparel Buyers' Association).
 J. LABARTHE, JR., Mellon Institute of Industrial Research, University of Pittsburgh, Pittsburgh 13, Pa.
 M. J. LOVELL, National Association of Pajama & Sportswear Manufacturers, 276 Fifth Avenue, New York, N. Y.
 B. HERBERT LUSTBERG, Lustberg, Nast & Co., Inc., 212 Fifth Avenue, New York 10, N. Y. (representing Boys' Outerwear & Sportswear Association).
 ROBERT NEILDS, Ware Knitters, Ware, Mass. (representing the National Knitted Outerwear Association).
 DR. PAUL NYSTROM, Limited Price Variety Stores Association, Inc., 25 W. 43d Street, New York, N. Y.
 L. ROHR, Sears, Roebuck & Co., Chicago, Ill. (representing Mail Order Association of America).
 LOUIS ROTHSCHILD, National Association of Retail Clothiers & Furnishers, 1106 Munsey Building, Washington 4, D. C.
 LEON SINGER, Boys' Apparel & Accessories Manufacturers' Association, Inc., 347 Fifth Avenue, New York, N. Y.
 EDWIN R. STANLEY, Mutual Buying Syndicate, Inc., 11 West 42d Street, New York, N. Y. (representing Boys' Apparel Buyers' Association).
 DR. DALE STEWART, Smithsonian Institution, Washington, D. C.
 DAVID P. TRACHTENBERG, Lit Bros., Philadelphia, Pa. (representing National Retail Dry Goods Association).

ACCEPTANCE OF COMMERCIAL STANDARD

If acceptance has not previously been filed, this sheet properly filled in, signed, and returned will provide for the recording of your organization as an acceptor of this commercial standard.

Date.....

Commodity Standards Division,
Office of Industry and Commerce,
U. S. Department of Commerce,
Washington 25, D. C.

Gentlemen:

We believe that the Commercial Standard 155-50 constitutes a useful standard of practice, and we individually plan to utilize it as far as practicable in the

production¹ distribution¹ purchase¹ testing¹

of boys' ready-to-wear clothing. We reserve the right to depart from it as we deem advisable.

We understand, of course, that only those articles which actually comply with the standard in all respects can be identified or labeled as conforming thereto.

Signature of authorized officer..... (In ink)

(Kindly typewrite or print the following lines)

Name and title of above officer.....

Organization.....
(Fill in exactly as it should be listed)

Street address.....

City, zone, and State.....

¹Underscore which one. Please see that separate acceptances are filed for all subsidiary companies and affiliates which should be listed separately as acceptors. In the case of related interests, trade associations, trade papers, etc., desiring to record their general support, the words "General Support" should be added after the signature.

TO THE ACCEPTOR

The following statements answer the usual questions arising in connection with the acceptance and its significance:

1. *Enforcement.*—Commercial standards are commodity specifications voluntarily established by mutual consent of those concerned. They present a common basis of understanding between the producer, distributor, and consumer and should not be confused with any plan of governmental regulation or control. The United States Department of Commerce has no regulatory power in the enforcement of their provisions, but since they represent the will of the interested groups as a whole, their provisions through usage soon become established as trade customs, and are made effective through incorporation into sales contracts by means of labels, invoices and the like.

2. *The acceptor's responsibility.*—The purpose of commercial standards is to establish for specific commodities nationally recognized grades or consumer criteria, and the benefits therefrom will be measurable in direct proportion to their general recognition and actual use. Instances will occur when it may be necessary to deviate from the standard and the signing of an acceptance does not preclude such departures; however, such signature indicates an intention to follow the commercial standard, where practicable, in the production, distribution, or consumption of the article in question.

3. *The Department's responsibility.*—The major function performed by the Department of Commerce in the voluntary establishment of commercial standards on a Nation-wide basis is fourfold: first, to act as an unbiased coordinator to bring all interested parties together for the mutually satisfactory adjustment of trade standards; second, to supply such assistance and advice as past experience with similar programs may suggest; third, to canvass and record the extent of acceptance and adherence to the standard on the part of producers, distributors, and users; and fourth, after acceptance, to publish and promulgate the standard for the information and guidance of buyers and sellers of the commodity.

4. *Announcement and promulgation.*—When the standard has been endorsed by a satisfactory majority of production or consumption in the absence of active, valid opposition, the success of the project is announced. If, however, in the opinion of the standing committee or of the Department of Commerce, the support of any standard is inadequate, the right is reserved to withhold promulgation and publication.

ACCEPTORS

The organizations listed below have individually accepted this standard for use as far as practicable in the production, distribution, testing, or purchase of apparel for boys. In accepting the standard they reserved the right to depart therefrom as they individually deem advisable. It is expected that articles which actually comply with the requirements of this standard in all respects will be regularly identified or labeled as conforming thereto, and that purchasers will require such specific evidence of conformity.

ASSOCIATIONS
(General Support)

American Retail Federation, Washington, D. C.
Boys' Apparel Buyers' Association, The, New York, N. Y.
Boys' Apparel & Accessories Manufacturers' Association, New York, N. Y.
Consumers Union of the U. S., Inc., New York, N. Y.
Independent Wholesale Dry Goods Association, Inc., New York, N. Y.
Mail Order Association of America, Washington, D. C.
National Council of Women of the U. S., Inc., New York, N. Y.

FIRMS AND OTHER INTERESTS

Abramson's, Flushing, N. Y.
Acorn Clothing Co., Boston, Mass.
Active Manufacturing Co., Inc., New York, N. Y.
Adam, J. N., & Co., Buffalo, N. Y.
Adam, Meldrum & Anderson Co., Inc., Buffalo, N. Y.
Adler Pants Co., Inc., New York, N. Y.
Alan-Gilmore, Inc., Chicago, Ill.
Albatross Coat Co., Inc., Long Island City, N. Y.
Albert, Eli E., Inc., New York, N. Y.
Albert, Nathan, & Sons, Inc., New York, N. Y.
Aldens, Inc., New York, N. Y.
Alvin Rainwear Co., Inc., New York, N. Y.
Amoskeag Pajama Co., Inc., Boston, Mass.
Appel, S., & Co., Inc., New York, N. Y.
Arkwright Merchandising Corp., New York, N. Y.
Ashland Knitting Mills, Ashland, Pa.
Atlas Underwear Co., The, Piqua, Ohio.
Auerbach Bath Robe Corp., New York, N. Y.
B & B Stores, Inc., Logansport, Ind.
Bangor Clothing Manufacturing Co., Inc., Bangor, Maine.
Bean, C. W., & Son, Pacolet, S. C.

Becker, H., Co., Inc., New York, N. Y.
Bee-Em Manufacturing Co., Philadelphia, Pa.
Berk-Ray Corp., Troy, N. Y.
Bernstein, Cohen & Co., Chicago, Ill.
Bernstein & Sons, New York, N. Y.
Better Fabrics Testing Bureau, New York, N. Y.
Billy Boy Co., New York, N. Y.
Blue Ridge Manufacturers, Inc., New York, N. Y.
Boeman Sportswear, Inc., Johnstown, N. Y.
Bond Stores, Inc., Rochester, N. Y.
Boston White Uniform Co., Boston, Mass.
Brill Uniforms, Inc., Milwaukee, Wis.
Burkey Underwear Co., Inc., Hamburg, Pa.
Bush & Rull, Bethlehem, Pa.
Butler Bros., Chicago, Ill.
Butler University, Indianapolis, Ind.
Carter & Churchill Co., Lebanon, N. H.
Carter, William, Co., The, Needham Heights, Mass.
Cedar Crest College, Allentown, Pa.
(General support.)
Central Co-operative Wholesale, Superior, Wis.
Chic Patterns, New York, N. Y.
Clair & Hirschman, Inc., New York, N. Y.
Classic Underwear Co., New York, N. Y.
Cohen, Percy, Inc., New York, N. Y.
College Clothing Co., New York, N. Y.
Collegeville Flag & Manufacturing Co., Collegeville, Pa.
Comus Manufacturing Co., Inc., New York, N. Y.
Congress Sportswear Co., Boston, Mass.
Connecticut University of, Storrs, Conn.
Coppin, John B., Co., Inc., Covington, Ky.
Cornell University, College of Home Economics, Ithaca, N. Y.
Cresco Manufacturing Co., Ashland, Ohio.
Crown Manufacturing Co., Inc., San Francisco, Calif.
D & C Stores, Inc., Stockbridge, Mich.
Day's Tailored Clothing, Inc., Tacoma, Wash.

- Delaware, University of, Newark, Del.
 Dennis, S., Inc., New York, N. Y.
 Denton Sleeping Garment Mills, Inc.,
 Centreville, Mich.
 Don Juan Manufacturing Co., New York,
 N. Y.
 Dubuque, University of, Dubuque, Iowa.
 Durable Sportwear Co., Inc., Lynbrook,
 N. Y.
 E-Cut Knitting Mills, Royersford, Pa.
 E-Z Mills, Inc., New York, N. Y.
 Eagle Bros., New York, N. Y.
 Eaton's of California, Pasadena, Calif.
 Economy Blouse Co., New York, N. Y.
 Elder Manufacturing Co., St. Louis, Mo.
 Elmira Knitting Mills, Elmira, N. Y.
 Endel Pants Co., Inc., New York, N. Y.
 Esakay Manufacturing Co., San Antonio,
 Tex.
 Essley Shirt Co., New York, N. Y.
 Ess-Tee Knitting Mills, Inc., Lowell,
 Mass.
 Evans, John P., Pomona, Calif.
 Excel Manufacturing Co., New Orleans,
 La.
 Faith Mills, Inc., Averill Park, N. Y.
 Fall River Manufacturing Co., Inc.,
 Fall River, Mass.
 Fandel Co., St. Cloud, Minn.
 Fashion Institute of Technology, New
 York, N. Y. (General support.)
 Fessler, H. H., Knitting Co., Orwigs-
 burg, Pa.
 Fierst & Axelbaum, New York, N. Y.
 Finkelstein, Jacob, & Sons, Woonsocket,
 R. I.
 Fishman, M. H., Co., Inc., New York,
 N. Y.
 Fligel, Ben, Co., Inc., New York, N. Y.
 Florida State University, Tallahassee,
 Fla. (General support.)
 Fort Schuyler Knitting Co., Utica,
 N. Y.
 Foster Bros. Manufacturing Co., Inc.,
 Luverne, Ala.
 Foxcroft Manufacturing Co., New York,
 N. Y.
 Frank Bros., San Antonio, Tex.
 Franton Knitwear Co., New York, N. Y.
 Freedman Bros., New York, N. Y.
 Freeman, David, & Son, Inc., Chicago,
 Ill.
 Freezer, Morris, & Co., Inc., New York,
 N. Y.
 Freund, Peter, Knitting Mills, Inc.,
 N. Bergen, N. J.
 Gardiner-Warring Co., Florence, Ala.
 Garfinckel, Julius, & Co., Washington,
 D. C.
 Geissler Knitting Mill, Hazleton, Pa.
 Gerber, John, Co., The, Memphis, Tenn.
 Gibbs Underwear Co., Philadelphia, Pa.
 Gilbert, Ray, Clothes, Inc., St. Louis,
 Mo.
 Globe Knitting Works, Grand Rapids,
 Mich.
 Globe Underwear Co., Inc., New York,
 N. Y.
 Goldblatt's of New York, Inc., New
 York, N. Y.
 Good Housekeeping Institute, New York,
 N. Y. (General support.)
 Goodall Co., Cincinnati, Ohio.
 Goulder Co., Inc., The, New York,
 N. Y.
 Grant, Gail G., Inc., Painesville,
 Ohio.
 Grant, W. T., Co., New York, N. Y.
 Green, H. L., Co., Inc., New York,
 N. Y.
 Greenberg, Charles, & Sons, New York,
 N. Y. (General support.)
 Greene, Harry H., & Co., Inc., New
 York, N. Y.
 Greenfield, M. E., Corp., New York,
 N. Y.
 Greenstone-Stern Co., Inc., New York,
 N. Y.
 Griffin Knitting Mills, Inc., Griffin,
 Ga.
 Grinchuck, J., Co., Braidwood, Ill.
 Grosner of Thirteen Twenty-five F St.,
 Washington, D. C.
 Hagger Co., Dallas, Tex.
 Halle Bros. Co., The, Cleveland, Ohio.
 Halpern & Christenfeld, Inc., New
 York, N. Y.
 Hamburg Knitting Mills & Bleach Works,
 Inc., Hamburg, Pa.
 Hanes, P. H., Knitting Co., Winston-
 Salem, N. C.
 Hansley Mills, Inc., Paris, Ky.
 Harmony Manufacturing Co., New York,
 N. Y.
 Harris Co., The, San Bernardino,
 Calif.
 Harris, H., Co., The, St. Paul, Minn.
 Hatch Textile Research, New York,
 N. Y.
 Hathaway, C. F., Co., Waterville,
 Maine.
 Hecht Co., The, Washington, D. C.
 Heins, C. H., Knitting Mill, Girard-
 ville, Pa.
 Henderson & Ervin, Charlottesville,
 Va.
 Herman-Vile Co., Kansas City, Mo.
 His Nibs Shirt Corp., Souderton, Pa.
 Holtsberg & Bro., Inc., New York, N. Y.
 Hortex Manufacturing Co., Inc., El
 Paso, Tex.
 Hospital Bureau of Standards & Sup-
 plies, Inc., New York, N. Y.
 Howland Dry Goods Co., Bridgeport,
 Conn.
 Isaacson, L., & Sons, New York, N. Y.
 Jablow, I., & Co., Inc., New York,
 N. Y., and Philadelphia, Pa.
 Jahraus, Braun Co., Buffalo, N. Y.
 Jett Mercantile Co., Pratt, Kans.
 Jibs, Inc., Philadelphia, Pa.
 Jovol Manufacturing Co., New York,
 N. Y.
 Juvenile Manufacturing Co., Inc., The,
 San Antonio, Tex.
 Kalamazoo Pant Co., Kalamazoo, Mich.

- Katz-Jacobson & Paris, Inc., New York, N. Y.
 Kaufmann Department Stores, Inc., Pittsburgh, Pa.
 Kaynee Co., The, Cleveland, Ohio.
 Kent Co., New York, N. Y.
 Kent State University, Kent, Ohio.
 Knighthood Shirt Co., Inc., New York, N. Y.
 Kresge, S. S., Co., Detroit, Mich.
 Kuczynski, J., Chicago, Ill.
 Kugelman's, Woodsville, N. H.
 Kurtz, David, Co., New York, N. Y.
 Lansburgh & Bro., Washington, D. C.
 Laurel Underwear Co., Pottstown, Pa.
 Lazarus, F. & R., Co., Columbus, Ohio.
 Lee-Wald Garment Co., Kansas City, Mo.
 Lehman-Baer Co., New York, N. Y.
 Leslie Togs, Inc., New York, N. Y.
 Levy Bros. Department Stores, San Mateo, Calif., and Burlingame, Calif.
 Levy, M., Co., Shreveport, La.
 LiFalco Manufacturing Co., Inc., Little Falls, N. Y.
 Lillienthal, Richard S., & Co., Inc., New York, N. Y.
 Lincoln Textiles, Inc., Merrill, Wis.
 Lit Brothers, Philadelphia, Pa.
 Little Champ of Hollywood, Los Angeles, Calif.
 Little Gent, Philadelphia, Pa.
 Little Ladies, Los Angeles, Calif.
 Lord & Taylor, New York, N. Y.
 Lubell Bros., Inc., New York, N. Y.
 Mabley & Carew Co., The, Cincinnati, Ohio.
 Mac-Wag Manufacturing Co., Gladewater, Tex.
 Mallard Sportswear Co., Chicago, Ill.
 Marlboro Shirt Co., Baltimore, Md.
 Matusow Manufacturing Co., The, Philadelphia, Pa.
 Maxon Shirt Corp., Greenville, S. C.
 Mayfair Sportswear Co., New York, N. Y.
 McCain Manufacturing Co., Inc., Birmingham, Ala.
 McKem, New York, N. Y.
 Mellon Institute of Industrial Research, Pittsburgh, Pa.
 Metro Pants Co., Inc., New York, N. Y.
 Meyer, A. I., Corp., Boston, Mass.
 Miami Knitting Mills, New York, N. Y.
 Michigan State Purchasing Division, Lansing, Mich.
 Middletown Knitting Mills, Inc., Middletown, N. Y.
 Milka Mills, New York, N. Y.
 Miller, Henry L., & Son, Inc., Port Carbon, Pa.
 Milwaukee-Downer College, Milwaukee, Wis.
 Milwaukee Sportswear, Inc., Milwaukee, Wis.
 Mines, A. S., & Pestcoe, New York, N. Y.
 Minneapolis Knitting Works, Minneapolis, Minn.
 Montana State University, Missoula, Mont.
 Montgomery Ward, Chicago, Ill.
 Moore, Harry C., Dry Goods Co., Nevada, Mo.
 Morgan Clan Knitting Mills, New York, N. Y.
 Moyer, Walter W., Co., Ephrata, Pa.
 Moyer Manufacturing Co., The, Youngstown, Ohio.
 Munsingwear, Inc., Minneapolis, Minn.
 Murphy, G. C., Co., McKeesport, Pa.
 Myers Bros., Springfield, Ill.
 National Bellas Hess, Inc., North Kansas City, Mo.
 Nazareth Mills, Inc., Nazareth, Pa.
 Nina, Inc., Spring Green, Wis.
 Nonpareil Manufacturing Co., New York, N. Y.
 OK Trouser Manufacturing Co., Inc., New York, N. Y.
 Oakwood Creations, Inc., New York, N. Y.
 Oberman & Co., Jefferson City, Mo.
 Olewitz, Murray, Inc., New York, N. Y.
 Oneita Knitting Mills, Utica, N. Y.
 O'Shaughnessy, Dewes & Klein, Inc., New York, N. Y.
 Oxford Pants Co., Inc., New York, N. Y.
 Palm Beach Co., The, Cincinnati, Ohio.
 Panzier Associates, New York, N. Y.
 Parsons & Baker Co., The, Phoenixville, Pa.
 Paul Manufacturing Co., Inc., New York, N. Y.
 Peasinger Bros., Omaha, Nebr.
 Pennsylvania, Commonwealth of, Harrisburg, Pa.
 Phillips, Ed E., Corp., Los Angeles, Calif.
 Phoenix Overgaiter Co., New York, N. Y.
 Plymouth Sportswear Co., Inc., Fall River, Mass.
 Princess Togs, New York, N. Y.
 Purdue University, W. Lafayette, Ind. (General support.)
 Purdue University, Home Economics Extension Service, Lafayette, Ind.
 Puritan Knitting Mills, Inc., The, Altoona, Pa.
 Quality Coat Co., Inc., New York, N. Y.
 Quality Knitting Co., Inc., Stowe, Pa.
 RGS Manufacturing Corp., New York, N. Y.
 Ram Manufacturing Corp., New York, N. Y.
 Rayless Department Stores, Inc., New York, N. Y.
 Reed's, Jacob, Sons, Philadelphia, Pa.
 Regent Co., Inc., Manheim, Pa.
 Reidler Knitting Mills, Inc., Hazleton, Pa.
 Reliance Manufacturing Co., Chicago, Ill.
 Rich's, Inc., Atlanta, Ga.

- Rob Roy Co., New York, N. Y.
 Robin Hood Sportswear of California, Redlands, Calif.
 Robinson Manufacturing Co., Dayton, Tenn.
 Rose, Morton M., Philadelphia, Pa.
 Rose's 5-10-25¢ Stores, Inc., Henderson, N. C.
 Rosenblatt, Louis, & Co., Inc., New York, N. Y.
 Royal Novelty Co., The, New York, N. Y.
 Roytex Boys Robes, Inc., New York, N. Y.
 Rudd Manufacturing Co., Inc., New York, N. Y.
 Russell Manufacturing Co., Inc., The, Alexander City, Ala.
 Saginaw Sportswear, Inc., New York, N. Y.
 Sale Knitting Co., Inc., Martinsville, Va.
 Samfeld Manufacturing Co., Inc., Chicago, Ill.
 Sandess Manufacturing Co., Philadelphia, Pa.
 Sanitary Knitting Co., Grand Rapids, Mich.
 Savada Bros., Inc., New York, N. Y.
 Scheer, Leo, Co., Evansville, Ind.
 Schiff Bros., New York, N. Y.
 Schudson, Chas., Inc., Milwaukee, Wis.
 Schuessler Knitting Mills, Chicago, Ill.
 Schwartz, B., & Co., Inc., Philadelphia, Pa.
 Schwartz, Wm., & Co., Inc., Philadelphia, Pa.
 Sea Island Shirts, Inc., New York, N. Y.
 Sears, Roebuck & Co., New York, N. Y., and Chicago, Ill.
 Seminole Manufacturing Co., Columbus, Miss.
 Shannon Mills, Inc., New Albany, Ind.
 Shrine Pajamas Co., New York, N. Y.
 Siegel, B., & Co., New York, N. Y.
 Signal Knitting Mills, Chattanooga, Tenn.
 Simmons College, Boston, Mass.
 Simon, Jules L., & Co., Chicago, Ill.
 Simon-Roland Co., Inc., New York, N. Y.
 Singer Sewing Machine Co., New York, N. Y.
 Smith, Timothy, Co., Boston, Mass.
 Smithfield Manufacturing Co., New York, N. Y.
 Sobel & Goldman, Inc., New York, N. Y.
 Soesbe, Potter Leather Co., Tullahoma, Tenn.
 Sorbeau Juvenile Manufacturing Co., Dubuque, Iowa.
 South Dakota State College, Extension Service, Brookings, S. Dak.
 Southeastern Clothing Corp., New York, N. Y.
 Spartan Novelty Corp., New York, N. Y.
 Spiegel, Inc., Chicago, Ill.
 Spiewak, I., & Sons, Jersey City, N. J.
 Splendid Shirt Co., New York, N. Y.
 Spring City Knitting Co., Spring City, Pa.
 Standard Knitting Mills, Inc., Knoxville, Tenn.
 Star Sportswear Manufacturing Co., Lynn, Mass.
 Stephen F. Austin State Teachers College, Home Economics Department, Nacogdoches, Tex.
 Stern Apparel Corp., Cleveland, Ohio.
 Stone Uniform Co., Inc., New York, N. Y.
 Stratford Knitting Mills, Inc., Linfield, Pa.
 Strong-Built Clothing Co., New York, N. Y.
 Strouse-Baer Co., The, Baltimore, Md.
 Sunshine Clothing Manufacturing Co., San Antonio, Tex.
 Supreme Pants Co., Inc., New York, N. Y.
 Swanknit, Inc., Cohoes, N. Y.
 Symons, Samuel, & Son, New York, N. Y.
 Taisch Manufacturing Co., Chicago, Ill.
 Tamon Sportswear Co., Los Angeles, Calif.
 Tartikoff, J., & Sons, New York, N. Y.
 Taylored Slacks of Hollywood, Los Angeles, Calif.
 Tennessee Overall Co., Inc., Tullahoma, Tenn.
 Tompkins Dry Goods Co., Middletown, N. Y.
 Trifine Trousers Co., New York, N. Y.
 "Undies," Inc., New York, N. Y.
 Union Manufacturing Co., Los Angeles, Calif.
 United Garment Manufacturing Co., Minneapolis, Minn.
 United States Rubber Co., Mishawaka, Ind.
 United States Testing Co., Inc., Hoboken, N. J.
 Unterberg, I., & Co., Inc., New York, N. Y.
 Utica Knitting Co., Utica, N. Y.
 Valley Knitting Co., Inc., New York, N. Y.
 Vermont, University of, Department of Home Economics, Burlington, Vt. (General support.)
 Vogueur, Inc., Womelsdorf, Pa.
 Waite's, Inc., Pontiac, Mich.
 Walkie Talkie Town, Milwaukee, Wis.
 Warren Nitewear Corp., New York, N. Y.
 Washington Manufacturing Co., The, New York, N. Y.
 Washington Mills Co., Winston-Salem, N. C.
 Wear Well Garment Co., Inc., Minneapolis, Minn.
 Weinstock-Lubin & Co., Sacramento, Calif.
 Weiss & Mahoney, Inc., New York, N. Y.
 Wellingtex Manufacturing Co., Inc., New York, N. Y.
 West Knitting Corp., Wadesboro, N. C.

West Virginia University, Morgantown,
W. Va.
Western Reserve University, Cleveland,
Ohio. (General support.)
Wieboldt Stores, Inc., Chicago, Ill.
Wilderman's Boys Shop, Tampa, Fla.
Wilgo Manufacturing Co., Inc., Woon-
socket, R. I.
Williams Bros. Manufacturing Co., Rome,
N. Y.
Wilson Manufacturing Co., Philadelphia,
Pa.
Winner, Inc. (The Winner House), Berne,
Ind.

Wood, J. M., Manufacturing Co., Inc.,
Waco, Tex.
Woodward & Lothrop, Washington, D. C.
Woolworth, F. W., Co., New York,
N. Y.
Wyoming, University of, Laramie,
Wyo.
Youngwear, Inc., New York, N. Y.

UNITED STATES GOVERNMENT

Interior, Department of the, Bureau of
Indian Affairs, Washington, D. C.

COMMERCIAL STANDARDS

CS No.
0-40. Commercial standards and their
value to business.
1-42. Clinical thermometers.
2-30. Mopsticks.
3-40. Stoddard solvent.
4-29. Staple porcelain (all-clay)
plumbing fixtures.
5-46. Pipe nipples; brass, copper,
steel and wrought-iron.
6-31. Wrought-iron pipe nipples. Su-
perseded by CS5-46.
7-29. Standard weight malleable iron
or steel screwed unions.
8-41. Gage blanks.
9-33. Builders' template hardware.
10-29. Brass pipe nipples. Superseded
by CS5-46.
11-41. Moisture regains of cotton
yarns.
12-48. Fuel oils.
13-44. Dress patterns.
14-43. Boys' button-on waists, shirts,
junior and sport shirts (made
from woven fabrics).
15-46. Men's pajama sizes (made from
woven fabrics).
16-29. Wall paper.
17-47. Diamond core drill fittings.
18-29. Hickory golf shafts.
19-32. Foundry patterns of wood.
20-49. Vitreous china plumbing fix-
tures.
21-39. Interchangeable ground-glass
joints, stopcocks, and stop-
pers.
22-40. Builders' hardware (nontemplate).
23-30. Feldspar.
24-43. Screw threads and tap-drill
sizes.
25-30. Special screw threads. Super-
seded by CS24-43.
26-30. Aromatic red cedar closet
lining.
27-36. Mirrors.
28-46. Cotton fabric tents, tarpaulins
and covers.
29-31. Staple seats for water-closet
bowls.
30-31. (Withdrawn.)

CS No.
31-38. Wood shingles.
32-31. Cotton cloth for rubber and
pyroxylin coating.
33-43. Knit underwear (exclusive of
rayon).
34-31. Bag, case, and strap leather.
35-49. Hardwood plywood.
36-33. Fourdrinier wire cloth.
37-31. Steel bone plates and screws.
38-32. Hospital rubber sheeting.
39-37. (Withdrawn.)
40-32. Surgeons' rubber gloves.
41-32. Surgeons' latex gloves.
42-49. Structural fiber insulating
board.
43-32. Grading of sulphonated oils.
44-32. Apple wraps.
45-48. Douglas fir plywood.
46-49. Hosiery lengths and sizes.
47-34. Marking of gold-filled and
rolled-gold-plate articles
other than watchcases.
48-40. Domestic burners for Pennsyl-
vania anthracite (underfeed
type).
49-34. Chip board, laminated chip
board, and miscellaneous
boards for bookbinding pur-
poses.
50-34. Binders board for bookbinding
and other purposes.
51-35. Marking articles made of silver
in combination with gold.
52-35. Mohair pile fabrics (100-percent
mohair plain velvet, 100-
percent mohair plain frieze,
and 50-percent mohair plain
frieze).
53-35. Colors and finishes for cast
stone.
54-35. Mattresses for hospitals.
55-35. Mattresses for institutions.
56-49. Oak flooring.
57-40. Book cloths, buckrams, and im-
pregnated fabrics for book-
binding purposes except
library bindings.
58-36. Woven elastic fabrics for use in ov-
eralls (over-all elastic webbing).

CS No.

- 59-44. Textiles—testing and reporting.
- 60-48. Hardwood dimension lumber.
- 61-37. Wood-slat venetian blinds.
- 62-38. Colors for kitchen accessories.
- 63-38. Colors for bathroom accessories.
- 64-37. Walnut veneers.
- 65-43. Methods of analysis and of reporting fiber composition of textile products.
- 66-38. Marking of articles made wholly or in part of platinum.
- 67-38. Marking articles made of karat gold.
- 68-38. Liquid hypochlorite disinfectant, deodorant, and germicide.
- 69-38. Pine oil disinfectant.
- 70-41. Phenolic disinfectant (emulsifying type) (published with CS71-41).
- 71-41. Phenolic disinfectant (soluble type) (published with CS70-41).
- 72-38. Household insecticide (liquid spray type).
- 73-48. Old growth Douglas fir, Sitka spruce, and Western hemlock standard stock doors.
- 74-39. Solid hardwood wall paneling.
- 75-42. Automatic mechanical draft oil burners designed for domestic installation.
- 76-39. Hardwood interior trim and molding.
- 77-48. Enameled cast-iron plumbing fixtures.
- 78-40. Ground-and-polished lenses for sun glasses (published with CS79-40).
- 79-40. Blown, drawn, and dropped lenses for sun glasses (published with CS78-40).
- 80-41. Electric direction signal systems other than semaphore type for commercial and other vehicles subject to special motor vehicle laws (after market).
- 81-41. Adverse-weather lamps for vehicles (after market).
- 82-41. Inner-controlled spotlamps for vehicles (after market).
- 83-41. Clearance, marker, and identification lamps for vehicles (after market).
- 84-41. Electric tail lamps for vehicles (after market).
- 85-41. Electric license-plate lamps for vehicles (after market).
- 86-41. Electric stop lamps for vehicles (after market).
- 87-41. Red electric warning lanterns.
- 88-41. Liquid burning flares.
- 89-40. Hardwood stair treads and risers.

CS No.

- 90-49. Power cranes and shovels.
- 91-41. Factory-fitted Douglas fir entrance doors.
- 92-41. Cedar, cypress and redwood tank stock lumber.
- 93-50. Portable electric drills (exclusive of high frequency).
- 94-41. Calking lead.
- 95-41. Lead pipe.
- 96-41. Lead traps and bends.
- 97-42. Electric supplementary driving and passing lamps for vehicles (after market).
- 98-42. Artists' oil paints.
- 99-42. Gas floor furnaces—gravity circulating type.
- 100-47. Porcelain-enameled steel utensils.
- 101-43. Flue-connected oil-burning space heaters equipped with vaporizing pot-type burners.
- 102- (Reserved for "Diesel and fuel-oil engines.")
- 103-48. Rayon jacquard velour (with or without other decorative yarn).
- 104-49. Warm-air furnaces equipped with vaporizing-type oil burners.
- 105-48. Mineral wool insulation for low temperatures.
- 106-44. Boys' pajama sizes (woven fabrics).
- 107-45. (Withdrawn.)
- 108-43. Treading automobile and truck tires.
- 109-44. Solid-fuel-burning forced-air furnaces.
- 110-43. Tire repairs—vulcanized (passenger, truck, and bus tires).
- 111-43. Earthenware (vitreous-glazed) plumbing fixtures.
- 112-43. Homogeneous fiber wallboard.
- 113-44. Oil-burning floor furnaces equipped with vaporizing pot-type burners.
- 114-43. Hospital sheeting for mattress protection.
- 115-44. Porcelain-enameled tanks for domestic use.
- 116-44. Bituminized-fibre drain and sewer pipe.
- 117-49. Mineral wool insulation for heated industrial equipment.
- 118-44. Marking of jewelry and novelties of silver.
- (E) 119-45¹. Dial indicators (for linear measurements).
- 120-48. Standard stock ponderosa pine doors.
- 121-45. Women's slip sizes (woven fabrics).

¹ Where "(E)" precedes the CS number, it indicates an emergency commercial standard, drafted under war conditions with a view toward early revision.

CS No.

- 122-49. Western softwood plywood.
- 123-49. Grading of diamond powder.
- (E) 124-45¹. Master disks.
- 125-47. Prefabricated homes.
- 126-45. Tank mounted air compressors.
- 127-45. Self-contained mechanically refrigerated drinking water coolers.
- 128-49. Men's sport shirt sizes—woven fabrics (other than those marked with regular neckband sizes).
- 129-47. Materials for safety wearing apparel.
- 130-46. Color materials for art education in schools.
- 131-46. Industrial mineral wool products, all types—testing and reporting.
- 132-46. Hardware cloth.
- 133-46. Woven wire netting.
- 134-46. Cast aluminum cooking utensils (metal composition).
- 135-46. Men's shirt sizes (exclusive of work shirts).
- 136-46. Blankets for hospitals (wool, and wool and cotton).
- 137-46. Size measurements for men's and boys' shorts (woven fabrics).
- 138-49. Insect wire screening.
- 139-47. Work gloves.
- 140-47. Testing and rating convectors.
- 141-47. Sine bars, blocks, plates, and fixtures.
- 142-47. Automotive lifts.
- 143-47. Standard strength and extra strength perforated clay pipe.
- 144-47. Formed metal porcelain enameled sanitary ware.
- 145-47. Testing and rating hand-fired hot water supply boilers.
- 146-47. Gowns for hospital patients.
- 147-47. Colors for molded urea plastics.

CS No.

- 148-48. Men's circular flat and rib knit rayon underwear.
- 149-48. Utility type house dress sizes.
- 150-48. Hot-rolled rail steel bars (produced from Tee-section rails).
- 151-48. Body measurements for the sizing of apparel for infants, babies, toddlers, and children (for the knit underwear industry).
- 152-48. Copper naphthenate wood-preservative.
- 153-48. Body measurements for the sizing of apparel for girls (for the knit underwear industry).
- 154- (Reserved for "wire rope".)
- 155-50. Body measurements for the sizing of boys' apparel (knit underwear, shirts, trousers).
- 156-49. Colors for polystyrene plastics.
- 157-49. Ponderosa pine and sugar pine plywood.
- 158-49. Model forms for girls' apparel.
- 159-49. Sun glass lenses made of ground and polished plate glass, thereafter thermally curved.
- 160-49. Wood-fiber blanket insulation (for building construction).
- 161-49. "Standard grade" hot-dipped galvanized ware.
- 162-49. Tufted bedspreads.
- 163-49. Standard stock ponderosa pine windows, sash, and screens.
- 164- (Reserved for "concrete mixers".)
- 165-50. Zinc naphthenate wood-preservative (spray, brush, dip application).
- 166-50. Size measurements for men's work trousers.
- 167-50. Automotive and general service copper tube.
- 168-50. Polystyrene plastic wall tiles, and adhesives for their application.

NOTICE.—Those interested in commercial standards with a view toward accepting them as a basis of everyday practice may secure copies of the above standards, while the supply lasts, by addressing the Commodity Standards Division, Office of Industry and Commerce, U. S. Department of Commerce, Washington 25, D. C.

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